

Amendment and Response

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Serial No.: 09/877,220

Confirmation No.: 8535

Filed: June 8, 2001

For: METHODS FOR TREATING NEUROPATHOLOGICAL STATES AND NEUROGENIC
INFLAMMATORY STATES AND METHODS FOR IDENTIFYING COMPOUNDS USEFUL THEREIN

Amendments to the Claims

This listing of claims replaces all prior versions, and listings, of claims in the above-identified application:

Listing of Claims

1-29. Cancelled

30. (Currently Amended) A method for altering NR1 subunit distribution in a test cell by decreasing the amount of NR1 subunit associated with a nucleus of the test cell, the method comprising:

contacting a test cell with a compound selected from the group consisting of a tyrosine kinase, a tyrosine kinase inhibitor, a tyrosine phosphatase, a tyrosine phosphatase inhibitor, a serine/threonine phosphatase, or a serine/threonine phosphatase inhibitor;

activating an NMDA glutamate receptor present on the test cell and on a control cell not contacted with a tyrosine kinase inhibitor; and

detecting the distribution of NR1 subunit associated with the nucleus in the test cell and the control cell, wherein a decrease in the amount of NR1 subunit associated with the nucleus of the test cell relative to the control cell indicates the alteration of NR1 subunit distribution the distribution of NR1 subunit in the test cell contacted with the compound is altered relative to the distribution of NR1 subunit in the control cell not contacted with the compound, wherein the alteration in the distribution of NR1 subunit is a decrease in the amount of NR1 subunit associated with a nucleus of a test cell.

31. (Currently Amended) A method for altering NR1 subunit distribution in a test cell by increasing the amount of NR1 subunit associated with a nucleus of the test cell, the method comprising:

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~~contacting [[a]] the test cell with a compound selected from the group consisting of a tyrosine kinase, a tyrosine kinase inhibitor, a tyrosine phosphatase, a tyrosine phosphatase inhibitor, a serine/threonine phosphatase, or a serine/threonine phosphatase inhibitor;~~

~~activating an NMDA glutamate receptor present on the test cell and on a control cell not contacted with the tyrosine kinase inhibitor; and~~

~~detecting the distribution of NR1 subunit in the test cell and the control cell; wherein the distribution of NR1 subunit in the test cell contacted with the compound is altered relative to the distribution of NR1 subunit in the control cell not contacted with the compound; wherein the alteration in the distribution of NR1 subunit is an increase in the amount of NR1 subunit associated with a nucleus of a test cell associated with the nucleus in the test cell and the control cell, wherein an increase in the amount of NR1 subunit associated with the nucleus of the test cell relative to the control cell indicates the alteration of NR1 subunit distribution.~~

32-33. Cancelled

34. (Currently Amended) A method for identifying a compound that alters NR1 subunit distribution in a test cell by decreasing the amount of NR1 subunit associated with a nucleus of the test cell, the method comprising:

~~contacting [[a]] the test cell with a compound;~~

~~activating an NMDA glutamate receptor present on the test cell and on a control cell not contacted with the compound; and~~

~~detecting the distribution of NR1 subunit in the cell, wherein an alteration in the distribution of NR1 subunit in the cell contacted with the compound relative to the distribution of NR1 subunit in a cell not contacted with the compound indicates the compound alters the distribution of NR1 subunit in the cell, wherein the alteration in the distribution of NR1 subunit in the cell is a decrease in the amount of NR1 subunit associated with the nucleus an alternation in the distribution of NR1 subunit in the test cell, wherein a decrease in the amount of NR1~~

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subunit associated with a nucleus of the test cell relative to the control cell indicates the compound alters NR1 subunit distribution in the test cell.

35. (Currently Amended) A method for identifying a compound that alters NR1 subunit distribution in a test cell by increasing the amount of NR1 subunit associated with a nucleus of the test cell, the method comprising:

contacting [[a]] the test cell with a compound;

activating an NMDA glutamate receptor present on the test cell and on a control cell not contacted with the compound; and

detecting an alteration in the distribution of NR1 subunit in the test cell, wherein an increase in the amount of NR1 subunit associated with a nucleus of the test cell relative to the control cell indicates the compound alters NR1 subunit distribution in the test cell ~~alteration in the distribution of NR1 subunit in the cell contacted with the compound relative to the distribution of NR1 subunit in a cell not contacted with the compound indicates the compound alters the distribution of NR1 subunit in the cell, wherein the alteration in the distribution of NR1 subunit in the cell is an increase in the amount of NR1 subunit associated with the nucleus.~~

36-45. Cancelled

46. (Currently Amended) A method for identifying a compound that alters the amount of NR1 subunit distribution in a test cell by decreasing the amount of NR1 subunit associated with a nucleus of the test cell and decreasing the total amount of NR1 subunit in the cell, the method comprising:

contacting [[a]] the test cell with a compound;

activating an NMDA glutamate receptor present on the test cell and on a control cell not contacted with the compound; and

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detecting a decrease in the amount of NR1 subunit associated with a nucleus of the test cell relative to the control cell and in the cell;

~~wherein an alteration in the amount of NR1 subunit in the cell contacted with the compound relative to the amount of NR1 subunit in a cell not contacted with the compound indicates the compound alters the amount of NR1 subunit in the cell, wherein the alteration in the amount of NR1 subunit in the cell is a decrease in the amount of NR1 subunit associated with the nucleus~~

detecting a decrease in the total amount of NR1 subunit in the test cell relative to the control cell, wherein detecting a decrease in the amount of NR1 subunit associated with the nucleus of the test cell relative to the control cell and a decrease in the total amount of NR1 in the test cell relative to the control cell indicates that the compound alters the amount of NR1 subunit associated with a nucleus of the test cell and the total amount of NR1 in the test cell.

47. (Currently Amended) A method for identifying a compound that alters the amount of NR1 subunit distribution in a test cell by increasing the amount of NR1 subunit associated with a nucleus of the test cell and increasing the total amount of NR1 subunit in the cell, the method comprising:

contacting ~~[[a]] the test cell~~ with a compound;

activating an NMDA glutamate receptor present on the test cell and on a control cell not contacted with the compound; and

detecting an increase in the amount of NR1 subunit associated with a nucleus of the test cell relative to the control cell and the amount of NR1 subunit in the cell;

~~wherein an alteration in the amount of NR1 subunit in the cell contacted with the compound relative to the amount of NR1 subunit in a cell not contacted with the compound indicates the compound alters the amount of NR1 subunit in the cell, wherein the alteration in the amount of NR1 subunit in the cell is an increase in the amount of NR1 subunit associated with the nucleus~~

detecting an increase in the total amount NR1 subunit in the test cell relative to the control cell, wherein the detecting an increase in the amount of NR1 subunit associated with

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the nucleus of the test cell relative to the control cell and an increase in the total amount of NR1 in the test cell relative to the control cell indicates that the compound alters the amount of NR1 subunit associated with a nucleus of the test cell and the total amount of NR1 in the test cell.

48-53. Cancelled

54. (Currently Amended) A method for identifying a tyrosine kinase inhibitor that alters NR1 subunit distribution in a test cell by decreasing the amount of NR1 subunit associated with a nucleus of the test cell, the method comprising:

contacting [[a]] the test cell with a tyrosine kinase inhibitor;

activating an NMDA glutamate receptor present [[in]] on the test cell and on a control cell not contact with the tyrosine kinase inhibitor; and

detecting an alteration in the distribution of NR1 subunit in the test cell, wherein detecting a decrease in the amount of NR1 subunit associated with a nucleus of the test cell relative to the control cell indicates the tyrosine kinase inhibitor alters NR1 subunit distribution in the test cell ~~an alteration in the distribution of NR1 subunit in the cell contacted with the tyrosine kinase inhibitor relative to the distribution of NR1 subunit in a cell not contacted with the tyrosine kinase inhibitor indicates the compound alters distribution of NR1 subunit, wherein the alteration in the distribution of NR1 subunit in the cell is a decrease in the amount of NR1 subunit associated with the nucleus.~~

55. (Currently Amended) A method for identifying a tyrosine ~~kinase~~kinasephosphatase inhibitor that alters NR1 subunit distribution in a test cell by increasing the amount of NR1 subunit associated with a nucleus of the test cell, the method comprising:

contacting [[a]]the test cell with a tyrosine ~~kinase~~kinasephosphatase inhibitor;

activating an NMDA glutamate receptor present [[in]]on the test cell and on a control cell not contacted with the tyrosine kinase inhibitor; and

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detecting an alteration in the distribution of NR1 subunit in the test cell; wherein
detecting an increase in the amount of NR1 subunit associated with a nucleus of the test cell
relative to the control cell indicates the tyrosine kinase inhibitor alters NR1 subunit distribution
in the test cell ~~detecting the distribution of NR1 subunit in the cell, wherein an alteration in the~~
~~distribution of NR1 subunit in the cell contacted with the tyrosine kinase inhibitor relative to the~~
~~distribution of NR1 subunit in a cell not contacted with the tyrosine kinase inhibitor indicates the~~
~~compound alters distribution of NR1 subunit, wherein the alteration in the distribution of NR1~~
~~subunit in the cell is an increase in the amount of NR1 subunit associated with the nucleus.~~

56-67. Cancelled

68. (Previously Presented) The method of claim 34, wherein the cell is a neuron.

69. (Previously Presented) The method of claim 34, wherein the contacting a cell with a compound occurs before, during, or after activating an NMDA glutamate receptor present on the cell.

70. (Previously Presented) The method of claim 34, wherein the compound is selected from the group consisting of a tyrosine kinase inhibitor, a tyrosine phosphatase, and a serine/threonine phosphatase.

71. (Previously Presented) The method of claim 34, wherein the compound is selected from the group consisting of a tyrosine kinase, a tyrosine phosphatase inhibitor, and a serine/threonine phosphatase inhibitor.

72. (Previously Presented) The method of claim 35, wherein the cell is a neuron.

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73. (Previously Presented) The method of claim 35, wherein the contacting a cell with a compound occurs before, during, or after activating an NMDA glutamate receptor present on the cell.

74. (Previously Presented) The method of claim 35, wherein the compound is selected from the group consisting of a tyrosine kinase inhibitor, a tyrosine phosphatase, and a serine/threonine phosphatase.

75. (Previously Presented) The method of claim 35, wherein the compound is selected from the group consisting of a tyrosine kinase, a tyrosine phosphatase inhibitor, and a serine/threonine phosphatase inhibitor.

76. (Previously Presented) The method of claim 46, wherein the cell is a neuron.

77. (Previously Presented) The method of claim 46, wherein the contacting a cell with a compound occurs before, during, or after activating an NMDA glutamate receptor present on the cell.

78. (Previously Presented) The method of claim 46, wherein the compound is selected from the group consisting of a tyrosine kinase inhibitor, a tyrosine phosphatase, and a serine/threonine phosphatase.

79. (Previously Presented) The method of claim 46, wherein the compound is selected from the group consisting of a tyrosine kinase, a tyrosine phosphatase inhibitor, and a serine/threonine phosphatase inhibitor.

80. (Previously Presented) The method of claim 47, wherein the cell is a neuron.

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81. (Previously Presented) The method of claim 47, wherein the contacting a cell with a compound occurs before, during, or after activating an NMDA glutamate receptor present on the cell.

82. (Previously Presented) The method of claim 47, wherein the compound is selected from the group consisting of a tyrosine kinase inhibitor, a tyrosine phosphatase, and a serine/threonine phosphatase.

83. (Previously Presented) The method of claim 47, wherein the compound is selected from the group consisting of a tyrosine kinase, a tyrosine phosphatase inhibitor, and a serine/threonine phosphatase inhibitor.

84. (Previously Presented) The method of claim 54, wherein the cell is a neuron.

85. (Previously Presented) The method of claim 54, wherein the contacting a cell with a compound occurs before, during, or after activating an NMDA glutamate receptor present on the cell.

86. (Previously Presented) The method of claim 55, wherein the test cell and the control cell is neuron.

87. (Previously Presented) The method of claim 55, wherein the contacting a cell with a compound occurs before, during, or after activating an NMDA glutamate receptor present in the cell.